AMENDMENTS TO THE CLAIMS

(Note: no amendments are made in this response).

1. (previously presented) An implantable electronic module, comprising:

an hermetically-sealed housing;

an electronic subassembly housed within said hermetically-sealed housing;

a rechargeable power source contained within said hermetically-sealed housing and operatively connected to said electronic subassembly for providing operating power to said electronic subassembly;

a first electrode external to said hermetically-sealed housing and electrically coupled to said electronic subassembly;

a second electrode external to said hermetically-sealed housing and electrically coupled to said electronic subassembly;

an antenna coil within said hermetically-sealed housing; and

telemetry circuitry, coupled to said antenna coil, for allowing data-containing signals to be received from and sent to at least one external device,

wherein the electronic subassembly measures a rectified voltage during recharging of the rechargeable power source via an external charging field, and transmits the measured voltage to one of the at least one external devices.

2. (original) The electronic module of Claim 1 wherein the electronic subassembly includes a ferrite core around which the antenna coil is wrapped.

3. (original) The electronic module of Claim 2 wherein the ferrite core includes a first half and a second half.

4. (previously presented) The electronic module of Claim 1 wherein the measured voltage is measured when no stimulation pulse is being provided by the electronic subassembly.

5. (original) The electronic module of Claim 4 wherein the hermetically-sealed housing comprises a tubular-shaped housing having a length no greater than about 27 mm and a diameter no greater than about 3.3 mm.

6. (original) The electronic module of Claim 4 wherein the electronic subassembly includes means for generating stimulation pulses that are applied through the first and second electrodes.

7. (original) The electronic module of Claim 6 wherein at least one of the first and second electrodes is carried on an external surface of said hermetically-sealed case.

8. (previously presented) The electronic module of Claim 1 wherein the rechargeable power source comprises a lithium-ion battery.

9. (previously presented) The electronic module of claim 5 wherein the rechargeable power source comprises a super capacitor.

10. (previously presented) The electronic module of claim 1 wherein the rechargeable power source comprises a rechargeable battery.

11. (previously presented) The electronic module of claim 1 wherein at least one of the external devices is an external charger.

12. (previously presented) An implantable electronic module, comprising:

an hermetically-sealed housing;

an electronic subassembly housed within said hermetically-sealed housing;

a rechargeable power source contained within said hermetically-sealed housing and operatively connected to said electronic subassembly for providing operating power to said electronic subassembly;

a first electrode external to said hermetically-sealed housing and electrically coupled to said electronic subassembly;

a second electrode external to said hermetically-sealed housing and electrically coupled to said electronic subassembly; and

telemetry circuitry for allowing data-containing signals to be received from and sent to at least one external device,

wherein the electronic subassembly measures a voltage during recharging of the rechargeable power source via an external charging field, and transmits the measured voltage to one of the at least one external devices.

13. (previously presented) The electronic module of claim 12 wherein the measured voltage is measured when no stimulation pulse is being provided by the electronic subassembly.

14. (previously presented) The electronic module of claim 12 wherein the rechargeable power source comprises a lithium-ion battery.

15. (previously presented) The electronic module of claim 14 wherein the rechargeable power source comprises a super capacitor.

16. (previously presented) The electronic module of claim 12 wherein the rechargeable power source comprises a rechargeable battery.

17. (previously presented) The electronic module of claim 16 wherein the hermetically-sealed housing is tubular shaped.

18. (previously presented) An implantable neural stimulator module, comprising:

an hermetically-sealed housing;

an electronic subassembly housed within said hermetically-sealed housing;

a rechargeable power source contained within said hermetically-sealed housing and operatively connected to said electronic subassembly for providing operating power to said electronic subassembly;

a first electrode external to said hermetically-sealed housing and electrically coupled to said electronic subassembly; and

a second electrode external to said hermetically-sealed housing and electrically coupled to said electronic subassembly,

wherein the electronic subassembly measures a voltage during recharging of the rechargeable power source via an external charging field, and wirelessly transmits the measured voltage to at least one external device.

19. (previously presented) The implantable neural stimulator module of claim 18 wherein at least one of the first and second electrodes is carried on an external surface of said hermetically-sealed case.

20. (previously presented) The implantable neural stimulator module of claim 18 wherein the rechargeable power source comprises a rechargeable battery.